

**December 3, 2002**

Mr. Ronald Dickerson  
Nucor Steel  
RR2, Box 311, County Road 400 East  
Crawfordsville, IN 47933

RE: 017-16004-00038  
Minor Source Modification to:  
Part 70 Permit No. 107- 7172-00038

Dear Mr. Dickerson:

An application to add a material transfer station to Nucor Steel's pending operation permit T-107-7172-00038 for their steel mill was received on August 29, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

Emission Unit and Control Equipment:

- (a) An inside material transfer station (previously this process occurred outside with a mobile unit, this project will move this operation indoors with the mobile used as a backup) to transfer various types and grades of lime, carbon, foamy slag and other alloys from rail cars to trucks for delivery to the mill and consisting of:
  - (1) Rail cars bottom unloading through a rubber boot to a conveyor;
  - (2) One totally enclosed conveyor that includes a bin vent dust collector and exhaust stack (LTS- 02);
  - (3) One loading spout connected to the load truck.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules

promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Walter Habeeb or dial (317) 232-8422.

Sincerely,  
Originally signed by Paul Dubenetzky

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

Minor Source Modification Permit and TSD  
WVH

cc: File - Montgomery County  
Air Compliance Section Inspector Jim Thorpe  
Compliance Data Section - Karen Nowak  
Administrative and Development - Sara Cloe  
Technical Support and Modeling - Michele Boner  
Nucor Steel Part 70 file - T 107-7172-00038  
Part 70 Reviewer - Melissa Groch

# **PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY**

**Nucor Steel Corporation  
5437 South Nucor Road  
Crawfordsville, Indiana Zip 47933**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 107-16004-00038	
Issued by: Originally signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 3, 2002

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## SECTION A

## SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a steel mill.

Responsible Official: Ronald Dickerson  
Source Address: RR 2, Box 311, County Road 400 East, Crawfordsville, IN 47933  
Mailing Address: RR 2, Box 311, County Road 400 East, Crawfordsville, IN 47933  
Phone Number: 765-364-1323  
SIC Code: 3312  
County Location: Montgomery  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source under PSD  
Major Source pursuant to Section 112 of the Clean Air Act  
One of 28 Listed Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) An inside material transfer station (previously this process occurred outside with a mobile unit, this project will move this operation indoors with the mobile used as a backup) to transfer various types and grades of lime, carbon, foamy slag and other alloys from rail cars to trucks for delivery to the mill and consisting of:

- (1) Rail cars bottom unloading through a rubber boot to a conveyor;
- (2) One totally enclosed conveyor that includes a bin vent dust collector and exhaust stack (LTS- 02);
- (3) One loading spout connected to the load truck.

### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because it is a major source, as defined in 326 IAC 2-7-1(22).

## **SECTION B                      GENERAL CONSTRUCTION CONDITIONS**

### **B.1       Definitions [326 IAC 2-7-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### **B.2       Effective Date of the Permit [IC13-15-5-3]**

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Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

### **B.3       Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]**

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.4       Emergency Provisions [326 IAC 2-7-16]**

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(a)        An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

(b)        An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1)        An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2)        The permitted facility was at the time being properly operated;
- (3)        During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4)        For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

- (5)        For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

## SECTION C GENERAL OPERATION CONDITIONS

### C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

### C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).



- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**C.4 Opacity [326 IAC 5-1]**

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Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.6 Operation of Equipment [326 IAC 2-7-6(6)]**

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Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

**Compliance Requirements [326 IAC 2-1.1-11]**

**C.7 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

**C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

**C.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**C.10 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a flow rate the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.11 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.12 General Reporting Requirements [326 IAC 2-7-5(3)(C)]**

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management

Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

(a) An inside material transfer station (previously this process occurred outside with a mobile unit, this project will move this operation indoors with the mobile used as a backup) to transfer various types and grades of lime, carbon, foamy slag and other alloys from rail cars to trucks for delivery to the mill and consisting of:

- (1) Rail cars bottom unloading through a rubber boot to a conveyor;
- (2) One totally enclosed conveyor that includes a bin vent dust collector and exhaust stack (LTS- 02);
- (3) One loading spout connected to the load truck.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## Emission Limitations and Standards

### D.1.1 Opacity Limitations 326 IAC 5-1-2

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the exhaust stack (LTS-02) shall comply with the following requirements:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### D.1.2 Particulate Matter (PM/PM<sub>10</sub>) [326 IAC 6-3-2] [326 IAC 2-2][40 CFR 52.21]

- (a) Pursuant to 326 IAC 6-3-2, the PM from the material transfer station shall be limited to 55.44 pound per hour by the following formula:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour  
P = 150 TPH for this process.

- (b) Particulate Matter (PM) emissions from the material transfer station should be less than 25 tons per year. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 do not apply.

- (c) Emissions of particulate matter less than 10 microns (PM<sub>10</sub>) from the material transfer station shall be less than 15 tons per year. Therefore, the requirements of 326 IAC 2-2 and 40 CFR 52.21 do not apply.

**D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.4 Performance Testing**

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Testing of the above-mentioned facilities is not required at this time. However, IDEM, OAQ retains the authority under 326 IAC 2-1-4(f) to require the Permittee to perform future compliance testing as necessary.

**D.1.5 Visible Emissions Notations**

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Visible emissions notations of the dust collector stack shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

This monitoring condition is necessary to ensure compliance with 326 IAC 6-3 (Process Operations).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.1.6 Record Keeping and Reporting Requirements**

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There are no record keeping or reporting requirements for this Minor Source Modification.

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Part 70 Minor Source Modification.**

#### **Source Background and Description**

<b>Source Name:</b>	Nucor Steel Corporation
Source Location:	4537 S. Nucor Road, Crawfordsville, IN 47993
County:	Crawfordsville
SIC Code:	3312
Operation Permit No.:	T 107-7172-00038
Operation Permit Issuance Date:	Not Yet Issued
Minor Source Modification No.:	107-16004-00038
Permit Reviewer:	Walter Habeeb

The Office of Air Quality (OAQ) has reviewed a modification application from Nucor Steel Corporation relating to the installation, inside of a building, of a material transfer station. The operation consist of the following emission units and pollution control devices:

- (a) An inside material transfer station (Previously this process occurred outside with a mobile unit, this project will move this operation indoors with the mobile used as a backup) to transfer various types and grades of lime, carbon, foamy slag and other alloys from rail cars to trucks for delivery to the mill and consisting of:
  - (1) Rail cars bottom unloading through a rubber boot to a conveyor;
  - (2) One totally enclosed conveyor that includes a bin vent dust collector and exhaust stack (LTS- 02);
  - (3) One loading spout connected to the load truck.

#### **Air Pollution Control Justification as an Integral Part of the Process**

The company has submitted the following justification such that the conveyor enclosure and dust collector be considered as an integral part of the process:

Operating the material transfer station without the conveyor enclosure and dust collector would cause a lost of raw material during the transfer operations.

IDEM, OAQ has evaluated the justifications and determined that the conveyor enclosure and dust collector will not be considered as an integral part of the process. IDEM, OAQ's reason for this decision is that the material transfer station could continue to be operated without the conveyor enclosure and dust collector. Therefore, the permitting level will be determined using the potential to

emit before the conveyor enclosure and dust collector.

### Enforcement Issue

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
LTS-02	Material Transfer Station	10'	1'	-	Ambient

### Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 26, 2002.

### Emission Calculations

See Appendix A (page 1 of 1) of this document for detailed emissions calculations

### Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	16.75
PM-10	16.75
SO <sub>2</sub>	-
VOC	-
CO	-
NO <sub>x</sub>	-

HAP's	Potential To Emit (tons/year)
There are no Haps	

TOTAL	0.0

### Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(A), because the particulate matter emissions increases are greater than 5 tons per year and less than 25 tons per year.

### County Attainment Status

The source is located in Montgomery County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Montgomery County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	276.1
PM-10	247.6
SO <sub>2</sub>	798.6
VOC	335.2
CO	4647.1
NO <sub>x</sub>	1538.2
Lead	0.7

This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the 28 listed source categories.



### Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Lead
Material Transfer Station	0.05	0.05	-	-	-	-	-
PSD Significant Levels	25	15	40	40	100	40	0.6

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

### State Rule Applicability

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the allowable particulate matter from the material transfer station shall be limited to 55.44 pounds per hour when operating at a process weight rate of 150 tons per hour.

The pounds per limitation was calculated with the following equation:

Interpolation of the data for the process weight rates greater than 60,000 pounds per hour shall be accomplished by the use of the equation:

$$E = (55.0) (P^{0.11}) - 40$$

Where E = rate of emissions in pounds per hour  
P = process weight rate in tons per hour

$$E = (55.0) (150)^{0.11} - 40$$
$$E = 55.44 \text{ lb/hr}$$

PM = 0.05 lbs/hr < 55.44 lb/hr so will comply.

## Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

- (a) The exhaust stack LTS-02 has applicable compliance monitoring conditions as specified below:
  - (1) Visible emissions notations from the material transfer station bin vent stack shall be performed once per shift during normal daylight operations when the process is in operation. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

This monitoring condition is necessary to ensure compliance with 326 IAC 6-3 (Process Operations).

## Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 107-16004-00038.

Company Name: Nucor Steel Corporation  
Address City IN Zip: 4537 S. Nucor Road, Crawfordsville, IN. 47993  
County: Montgomery  
Permit No.: 107-16004-00038  
Permit Reviewer: Walter Habeeb  
Date: October 23, 2002

### **PM/PM10 Emissions from Material Transfer Station**

#### Potential to Emit

Maximum Throughput: 150 tons/hour

Emissions from material transfer based on amount of dust collected.

Efficiency of collector (%) = 99.7%

E (PM collected in Dust Collector) = 16.7 tons/yr

Equation:

Efficiency of Collector (%) =  $(E_{bc} \cdot B \cdot E_{ac}) / E_{bc}$

E, collected (tons/yr) =  $E_{bc} \cdot B \cdot E_{ac}$

Emissions PM, bc (tons/yr) = E, collected / Eff, collector = 16.75 (tons/yr)

Emissions PM, ac (tons/yr) = Emissions PM, bc x (1-Eff, collector) = 0.05 (tons/yr)

#### Allowable PM Emissions

The following calculation determines PM compliance with 326 IAC 6-3-2 for process rates greater than 60,000 tons per hour.

P = 150 (tons/hr)

E =  $(55.0) (150)^{0.11} \cdot B \cdot 40$

E = 55.44 (lb/hr)

Potential PM Emissions, ac = 0.01(lb/hr) so will comply.